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(54) A combined fan and illuminating device

(57) A combined fan and illuminating device has a housing in two parts, the upper part being fixed to the ceiling and the lower part 20 being rotatably mounted under the upper part. A fan blade 34, driven by a first motor 30, is mounted inside the housing, above an annular fluorescent tube 40. The lower part of the housing 20 is rotated by a second motor 22, and is both perforate and transparent to allow the light and the fanned air to pass through.

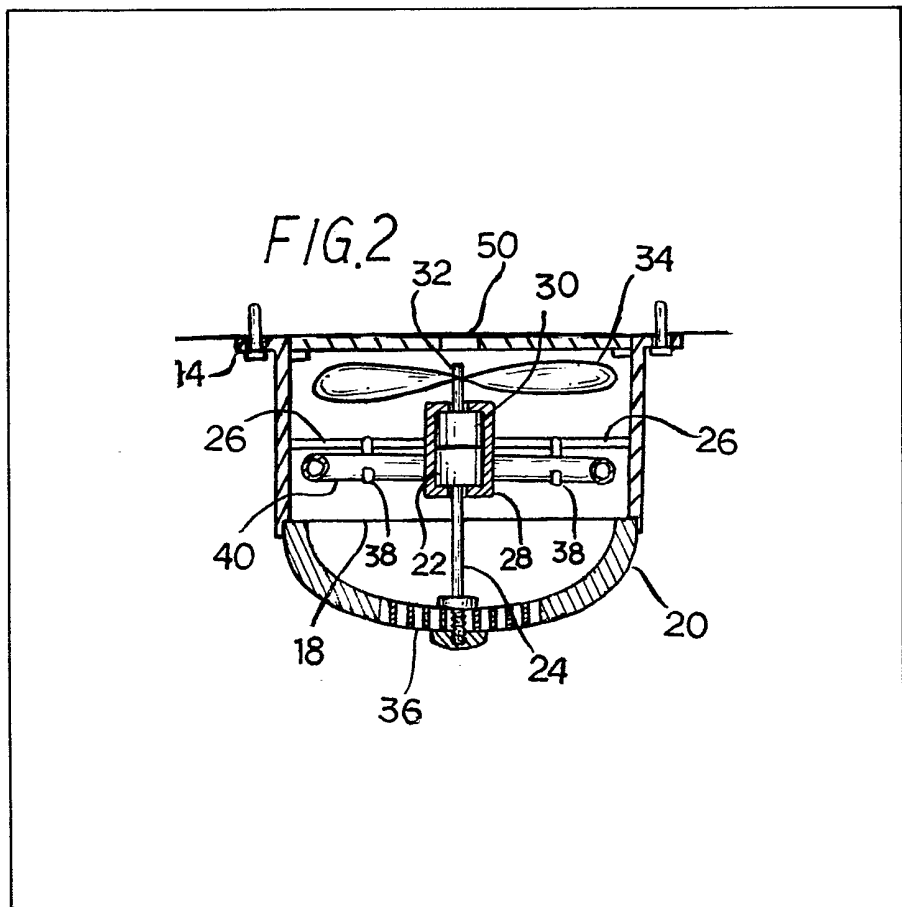


FIG. 1

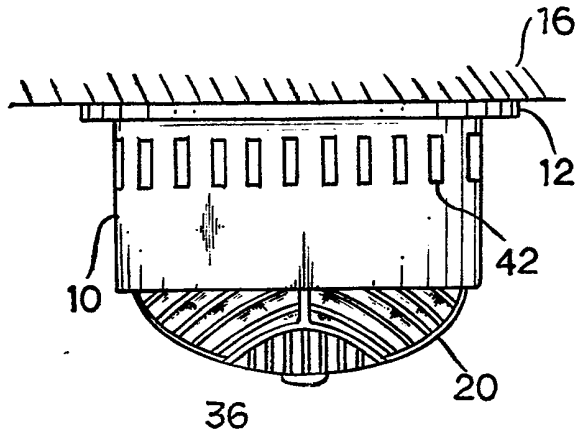


FIG. 2

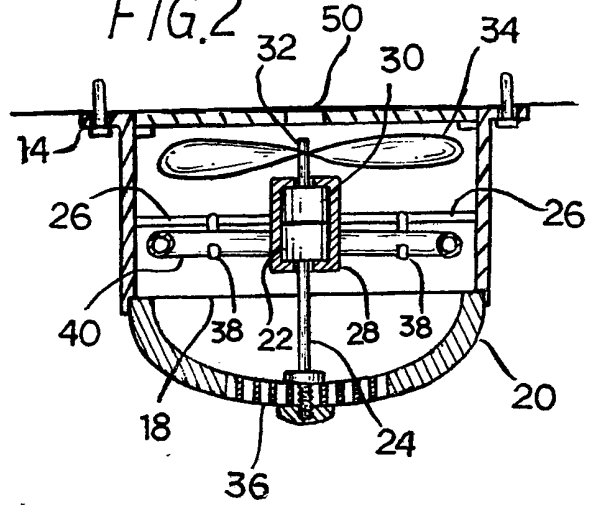


FIG. 3

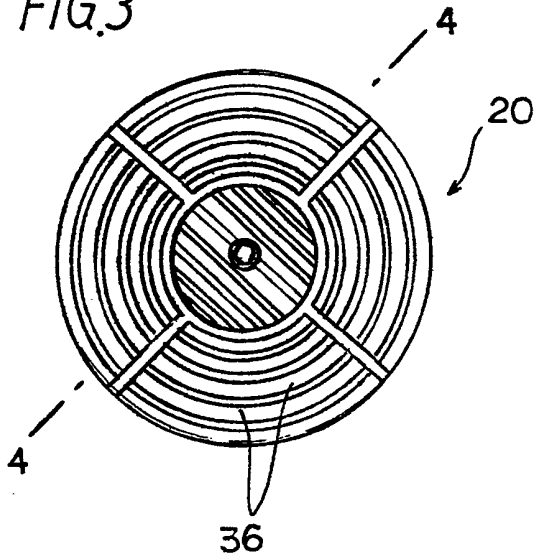


FIG. 4

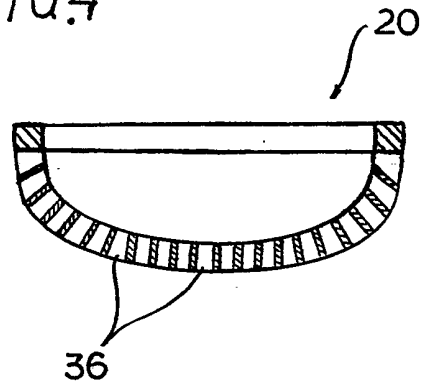


FIG. 5

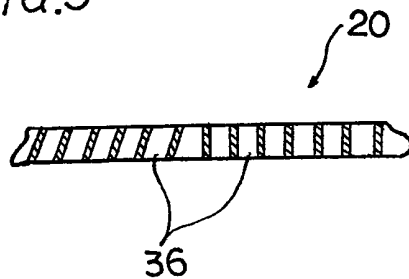


FIG 2

## SPECIFICATION

**A combined fan and illumination device**

5 The present invention relates to a combined fan and illumination device and, more particularly, to a combined fan and illumination device which may be hung from a ceiling.

10 Previously electric fans and pendent lamps, which hang from a ceiling, were installed separately. They therefore occupied a lot of space in the room and caused much trouble while in installation due to the limitation of space. For example, if the best position for installing the pendent lamp is chosen, the illuminating effect would come up to expectation, but the pendent fan will therefore not be able to be set at the above said position to give the best effect of fanning. From the above, it will be understood that prime siting of both fan and light is rather difficult.

20 Furthermore, the axis of rotation of most of the general pendent fans cannot be moved so fanning the air will be limited to a small area. Even when a conventional angular rotating device is installed on the electric fan, the fanning effect is still not satisfactory because the direction in which air is blown will change following the turning of the fan, causing the current of air in any one place to occur only intermittently.

30 In accordance with the present invention, there is provided a combined fan and illumination device comprising a housing having at least a perforate part and a translucent part, and internal to the housing, a motor driving at least one fan blade and a lamp positioned between said fan blade and said translucent part of the housing.

35 Preferably the housing comprises two parts, a first part being translucent and perforate and being mounted rotatably in a second part, and in which a second motor is provided to rotate the said first part relative to the said second part.

It is preferred that the housing is adapted to be mounted on a ceiling.

The lamp may be an annular fluorescent tube.

45 The invention also provides a combined fan and illumination device as claimed in any of the previous claims in which the lamp is an annular fluorescent tube.

50 An advantage of the present invention is that a combined fan and illumination device is provided in which fan and lamp may be integrately collected together to minimize installation space.

Another advantage of the present invention is that a combined fan and illumination device is provided, in which a shade is provided with multiple radiate air holes so that the air blown by the fan blade may radiately blow out through the air holes of the transparent shade, reaching to every corner of the room.

60 A further advantage of the present invention is the provision of a combined fan device, in which the shade may be rotated by a second motor to change the directions of the air holes and wind.

Figure 1 is a front view of the fan and light device of this invention.

65 Figure 2 is a longitudinally sectional view of the fan

and light device of Figure 1.

Figure 3 is a plan view of the shade.

Figure 4 is a view taken along the line 4-4 of the shade of Figure 3.

70 Figure 5 is a sectional view of a shade from another embodiment of this invention.

75 Referring to Figures 1 and 2, the fan and light device comprises a shell body 10, one end of which is formed as a base 12 having nailing holes 14 to be nailed by nails so as to mount the shell body 10 on a ceiling 16. The other end of the shell body 10 is an opening 18 which is covered with a hemispherical translucent shade 20 that is rotably fixed on the front end of a turning axle 24 of a second motor 22 and may rotate under driving of said turning axle 24. Inside, the shell body 10 is provided with three supporting ribs 26 in order to steadily hold a motor case 28.

80 The second motor 22 is to be set in a lower part of the motor case 28 and the first motor 30 set in an upper part of the motor case 28. The turning axle 32 of said first motor 30 is mounted with a fan blade 34 fanning the air to the opening 18 of the shell body 10. Upon turning on a switch of the first motor 30 to drive the turning axle 32 to rotate the fan blade 34, the wind from the fan blade 34 to the shade 20 will radiately blow out through radiate air holes 36 of the shade 20. To rotate the shade 20, the switch of said second motor 22 can be turned on to change the directions of the air holes 36 and the wind.

95 Now referring to Figure 2, a lamp hook 38 is provided on each of the mentioned three supporting ribs 26 for supporting an annular fluorescent lamp 40. Because the fluorescent lamp 40 is placed between the fan-leaf 34 and the transparent shade 20, the light will directly pass through the shade 20 without lamp illumination resulted from the light being affected by fan-leaf 34. The indicated number 50 shown in Figure 2 shows an electric wire hole 50.

100 The combined fan and illumination device of the present invention possesses a characteristic that lamp and fan are integrately collected together; thus it will be convenient for installation without the worry about occupying more space, and the fan and the lamp can be used individually or together. Furthermore, the fan and the motor are placed within the shell body 10 which is similar to a conventionally used lamp's shell body so it looks like a lamp by its outer appearance, giving people a special taste and aesthetic sense.

105 The invention is not limited to the above described embodiments. For instance the air holes 36 of the shade 20 may be schemed to various specifications, such as radiate air holes as shown in Figure 4 and the air holes shown in Figure 5. In Figure 5, the air holes on the right side face down vertically and the air holes on the left side face out obliquely, so the wind exhausted from the air holes will spread over a large area as the shade 20 rotates under driving of the second motor 22.

## CLAIMS

110 1. A combined fan and illumination device comprising a housing having at least a perforate part and a translucent part, and internal to the housing, a motor driving at least one fan blade and a lamp positioned between said fan blade and said translucent part of the housing.

120 2. A combined fan and illumination device as

claimed in Claim 1, in which the housing comprises two parts, a first part being translucent and perforate and being mounted rotatably in a second part, and in which a second motor is provided to rotate the said first part relative to the said second part.

3. A combined fan and illumination device as claimed in Claim 2 in which the second part is also perforate.

4. A combined fan and illumination device as claimed in any of the previous claims in which the housing is adapted to be mounted on a ceiling.

5. A combined fan and illumination device as claimed in any of the previous claims in which the lamp is an annular fluorescent tube.

6. A combined fan and illumination device comprising a housing; a first motor having a turning axle and a fan blade mounted on said turning axle of said first motor; said first motor and said fan blade being positioned in an upper part of said shell body with said fan blade driven by said first motor to fan air out of said shell body; a second motor positioned in a lower part of said housing; a translucent covering over an opening in said housing connected for rotation by said second motor; and an annular illuminating lamp supported between said fan blade and said translucent covering.

7. A combined fan and illumination device as claimed in Claim 6, wherein the translucent covering is provided with multiple air holes.

8. A combined fan and illumination device as claimed in either of Claims 6 or Claim 7 wherein the multiple air holes in the translucent shade are given various directions in such a manner as to guide the air blowing out along various directions.

9. A combined fan and illumination device substantially as hereinbefore described, with reference to, and as shown in the accompanying drawings.